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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/816,333	03/26/2001	Yatin R. Acharya	F0691	6324

45114 7590 10/20/2004

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EXAMINER

WONG, BLANCHE

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/816,333

Applicant(s)

ACHARYA ET AL.

Examiner

Blanche Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-12, 14-17, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 8, 13 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date Jul 26, 01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant is suggested to remove all – configured to – to make the limitations in claims 1,3,8,13,14,15,16,18,19,20 more positive for consideration.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “340” has been used to designate both Action Generator and Output Control Queues in Fig. 3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1,6,7,9,12,14,17** are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Leung (U.S. Pat No. 6,466,580).

With regard to claims 1,9,12,14, Leung discloses a system (claim 1) and method (claim 9) (Internal Rule Checker 40) for identifying priority level (high and low) information for a data frame received by a network device 12 (Integrated Multiport Switches). The IRC monitors the data bus col. 5, ln. 1 (receiving a plurality of data frames), and outputs a forwarding decision in the form of a forwarding descriptor col. 5, ln. 26-27 (generating an action tag (claim 9); therefore IRC is an action and tag generator (claim 1 and 14)). The forwarding descriptor includes a port vector into a port vector FIFO 56, col. 5, ln. 29-34 (programming a memory with priority level information; therefore the PV FIFO is an action memory (claim 14)) and in turn, the port vector FIFO supplies the frame pointers to the appropriate output queues col. 5, ln. 34-40 (accessing the memory to identify the priority level information and using the action tags). Fig. 2.

With regard to claims 6 and 17, Leung further discloses output queue data structure in Fig. 5 (a lookup table).

With regard to claims 7 and 14, Leung further discloses a multiport network device 12 (IMS), comprising: a MAC module 20 that has a receive portion 20a and a transmit portion 20b (a plurality of input and output ports), a memory 74,76 (queuing 74 and dequeuing 76 logics are inherently stored in some memory) and a scheduler 80, col. 36-38 (decoder). Fig. 3A.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 2,3,4,5,10,11,15,16,19,20**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Leung in view of Tzeng (U.S. Pat No. 6,728,213).

With regard to claims 4,15, Leung discloses an IMS 12. However, Leung fails to explicitly show a memory preprogrammed with the priority level information by a host device, as recited in claim 15.

In an analogous art, Tzeng discloses 128 preprogrammed patterns (col. 5, ln. 57).

A person of ordinary skill in the art would have been motivated to employ Tzeng in Leung in order to obtain preprogramming. The suggestion/motivation to do so would have been to provide for selective admission control. Tzeng, col. 1, ln. 35-43. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Tzeng and Leung to obtain the invention as specified in claim 15.

With regard to claims 2,5,10,11,16, Leung discloses an IMS 12 and a lookup table (output queue data structure in Fig. 5). However, Leung fails to expressly show a

plurality of priority queues, as recited in claims 2 and 10; a plurality of registers, as recited in claims 5 and 11; each of the registers being configured to store priority level information corresponding to one or more of the classes of services, as recited in claim 16.

In an analogous art, Tzeng discloses multiple priority queues (col. 5, ln. 7).

A person of ordinary skill in the art would have been motivated to employ Tzeng in Leung in order to obtain multiple priorities. The suggestion/motivation to do so would have been to provide for multiport. Tzeng, col. 1, ln. 44-53. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Tzeng and Leung to obtain the invention as specified in claim 16.

With regard to claims 3, 19 and 20, Leung discloses an IMS 12, and a PV FIFO 56. However, Leung fails to explicitly show a port vector queue for identifying one of the priority queues for each of the received data frames, as recited in claim 3; a port filter for applying policy rules to the data frames to identify one or more policy equations, as recited in claim 19; and a decoder for receiving the one or more policy equations within a decoder, and for using the selected policy equation to identify one of the entries in the action memory, as recited in claim 20.

In analogous art, Tzeng discloses a port filter logic 300 (col. 7, ln. 18-col. 8, ln. 30).

A person of ordinary skill in the art would have been motivated to employ Tzeng in Leung in order to obtain multiple priorities. The suggestion/motivation to do so would have been to provide for multiport. Tzeng, col. 1, ln. 54-62. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Tzeng and Leung to obtain the invention as specified in claims 19 and 20.

Allowable Subject Matter

7. **Claims 8,13,18** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

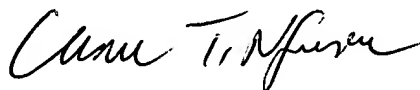
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BW

BW

October 8, 2004



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SUPERVISORY PATENT EXAMINER
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